REMARKS/ARGUMENTS

Claims 1, 11 and 12 are pending in this application.

In the office action mailed March 21, 2007, the claims were rejected again under 35 U.S.C. §102(e) as being unpatentable over U.S. patent number 6,635,569 to Ameen et al. The rejections were made final. This amendment is therefore submitted with an Request for Continued Examination (RCE). Claims 1, 11 and 12 have been amended again and are believed to avoid the Ameen reference.

Paraphrased, each of the amended claims now recite a method comprised of two back-to-back plasmas formed in an etching and deposition apparatus. In claim 1, the first plasma consists essentially of hydrogen plasma and some argon. The second plasma of claim 1 consists essentially of nitrogen and some argon.

In claim 11, the first plasma consists essentially of nitrogen; the second plasma consists essentially of hydrogen.

In claim 12, the first plasma consists essentially of hydrogen and some argon; the second plasma consists essentially of nitrogen and both hydrogen and argon.

Support for the amendments to claims 1, 11 and 12 can be found in the specification beginning at line 14 of page 5 through line 23 of page 6.

Beginning at line 14 of page 5, the specification states that "the reaction tube is treated with hydrogen ***or*** nitrogen-based plasmas." (Emphasis added.) In lines 3-4 of page 6, the specification states that "the above processes may be applied in sequence as the following...." (Emphasis added.) Three paragraphs on page 6 describe how the two plasmas can be sequenced with respect to each other. In the second-to-last paragraph of page 6, the specification states that the nitrogen based plasma "may contain...5 to 90% of hydrogen or 5 to 90% of argon ***or [a] combination thereof."*** (Emphasis added.) Thus, the specification supports the amendment to claim 12, which requires the second, nitrogen-containing plasma to have both hydrogen and argon.

The Applicant believes that the amendments to claims 1, 11 and 12 traverse the rejection because each of the amended claims now require at least one of the back-to-back plasmas "consists essentially of" nitrogen. The "consisting essentially of" transition phrase requires the claim to be construed to allow only nitrogen and

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insignificant amounts of other materials, as set forth in the applicant's previous response. Ameen does not teach back-to-back plasmas to clean an apparatus and even if it did, Ameen does not teach that one such plasma "consists essentially of nitrogen."

In column 9, lines 1-15, Ameen mentions the use of NF_3 in a plasma. Ameen also mentions the use of NH_3 in a reduction reaction, however neither NF_3 nor NH_3 can satisfy the "consisting essentially of" limitation of claims 1, 11 and 12 because the compounds of NF_3 and NH_3 contain highly significant and materially-affecting amounts of materials *other than* nitrogen. The compounds of NF_3 and NH_3 recited in Ameen therefore do *not* satisfy the "consisting essentially of" transition/limitation and it is improper to reject the amended claims under Ameen unless the Examiner can show that each and every claim limitation is satisfied by Ameen.

Since the applicant believes that the amended claims avoid the Ameen reference, reconsideration and allowance of the amended claims is respectfully requested.

Yours truly,

Dated: May 29, 2007

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